



## SEQUENCE LISTING

<110> Kosan Biosciences, Inc.  
Santi, Daniel  
Peck, Larry  
Dayem, Linda  
Kealey, James

<120> HETEROLOGOUS PRODUCTION OF POLYKETIDES

<130> 30062-20049.00

<140> US 09/699,136

<141> 2000-10-27

<150> US 60/161,414

<151> 1999-10-25

<150> US 60/161,703

<151> 1999-10-27

<150> US 60/206,082

<151> 2000-05-18

<160> 2

<170> FastSEQ for windows Version 4.0

<210> 1

<211> 447

<212> DNA

<213> Artificial Sequence

<220>

<223> Isolated and recombinant form of the full  
epimerase gene sequence

<221> CDS

<222> (1)...(444)

<400> 1

atg	agt	aat	gag	gat	ctt	ttc	atc	tgt	atc	gat	cac	gtg	gca	tat	gcg	48
Met	Ser	Asn	Glu	Asp	Leu	Phe	Ile	Cys	Ile	Asp	His	Val	Ala	Tyr	Ala	
1				5					10					15		

tgc	ccc	gac	gcc	gac	gag	gct	tcc	aag	tac	tac	cag	gag	acc	ttc	ggc	96
Cys	Pro	Asp	Ala	Asp	Glu	Ala	Ser	Lys	Tyr	Tyr	Gln	Glu	Thr	Phe	Gly	
			20					25					30			

tgg	cat	gag	ctc	cac	cg	gag	gag	aac	ccg	gag	cag	gga	gtc	gtc	gag	144
Trp	His	Glu	Leu	His	Arg	Glu	Glu	Asn	Pro	Glu	Gln	Gly	Val	Val	Glu	
		35					40					45				

atc	atg	atg	gcc	ccg	gct	gcg	aag	ctg	acc	gag	cac	atg	acc	cag	gtt	192
Ile	Met	Met	Ala	Pro	Ala	Ala	Lys	Leu	Thr	Glu	His	Met	Thr	Gln	Val	
	50					55					60					

cag	gtc	atg	gcc	ccg	ctc	aac	gac	gag	tcg	acc	gtt	gcc	aag	tgg	ctt	240
Gln	Val	Met	Ala	Pro	Leu	Asn	Asp	Glu	Ser	Thr	Val	Ala	Lys	Trp	Leu	
65					70					75					80	

gcc	aag	cac	aat	ggt	cg	gcc	gga	ctg	cac	cac	atg	gca	tgg	cgt	gtc	288
Ala	Lys	His	Asn	Gly	Arg	Ala	Gly	Leu	His	His	Met	Ala	Trp	Arg	Val	
				85					90					95		

010025-01 040112 SeqList

gat gac atc gac gcc gtc agc gcc acc ctg cgc gag cgc ggc gtg cag	336
Asp Asp Ile Asp Ala Val Ser Ala Thr Leu Arg Glu Arg Gly Val Gln	
100 105 110	
ctg ctg tat gac gag ccc aag ctc ggc acc ggc ggc aac cgc atc aac	384
Leu Leu Tyr Asp Glu Pro Lys Leu Gly Thr Gly Gly Asn Arg Ile Asn	
115 120 125	
ttc atg cat ccc aag tcg ggc aag ggc gtg ctc atc gag ctc acc cag	432
Phe Met His Pro Lys Ser Gly Lys Gly Val Leu Ile Glu Leu Thr Gln	
130 135 140	
tac ccg aag aac tga	447
Tyr Pro Lys Asn	
145	

<210> 2  
 <211> 148  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Deduced amino acid sequence of the epimerase gene sequence

<400> 2

Met Ser Asn Glu Asp Leu Phe Ile Cys Ile Asp His Val Ala Tyr Ala	
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Cys Pro Asp Ala Asp Glu Ala Ser Lys Tyr Tyr Gln Glu Thr Phe Gly	
20 25 30	
Trp His Glu Leu His Arg Glu Glu Asn Pro Glu Gln Gly Val Val Glu	
35 40 45	
Ile Met Met Ala Pro Ala Ala Lys Leu Thr Glu His Met Thr Gln Val	
50 55 60	
Gln Val Met Ala Pro Leu Asn Asp Glu Ser Thr Val Ala Lys Trp Leu	
65 70 75 80	
Ala Lys His Asn Gly Arg Ala Gly Leu His His Met Ala Trp Arg Val	
85 90 95	
Asp Asp Ile Asp Ala Val Ser Ala Thr Leu Arg Glu Arg Gly Val Gln	
100 105 110	
Leu Leu Tyr Asp Glu Pro Lys Leu Gly Thr Gly Gly Asn Arg Ile Asn	
115 120 125	
Phe Met His Pro Lys Ser Gly Lys Gly Val Leu Ile Glu Leu Thr Gln	
130 135 140	
Tyr Pro Lys Asn	
145	